

Fact Sheet



Is Soil?



United States
Department of
Agriculture

**Natural
Resources
Conservation
Service**

June 2002

WHAT ON EARTH IS SOIL?

- Soil makes up the outermost layer of our planet.
- Topsoil is the most productive soil layer.
- It has varying amounts of organic matter (living and dead organisms), minerals, and nutrients.
- Five tons of topsoil spread over an acre is as thick as a dime.
- Natural processes can take 500 years to form one inch of topsoil.
- Soil scientists have identified over 70,000 kinds of soil in the United States.
- Soil is formed from rocks and decaying plants and animals.
- An average soil sample is 45% minerals, 25% water, 25% air, and 5% organic matter.
- Different sized mineral particles, such as sand, silt, and clay, give soil texture.
- Lichens help break apart rocks to form soil.
- Fungi and bacteria help break down organic matter in the soil.
- Plant roots break up rocks which become part of new soil.
- Roots loosen the soil and allow oxygen to penetrate. This benefits animals living in the soil.
- Roots hold soil together and help prevent erosion.
- Five to ten tons of animal life can live in an acre of soil.
- Earthworms digest organic matter, recycle nutrients, and make the surface soil richer.
- One earthworm can digest 36 tons of soil in one year.
- Mice take seeds and other plant materials into underground burrows, where this material eventually decays and becomes part of the soil.
- Mice, moles, and shrews dig burrows which help aerate the soil.

Contact your local Natural Resources Conservation Service office for further assistance.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.